In the Drawings

Applicant submits herewith two sheets of drawing, Figures 1 and 2.

REMARKS

In the Office Action, the Examiner indicated that claims 1 through 23 are pending in the application and the Examiner rejected all of the claims.

Drawings

On page 2 of the Office Action, the Examiner required that applicant furnish a drawing to facilitate understanding of the invention. Applicant submits herewith Figures 1 and 2, in response to this requirement. Figure 1 illustrates the device of claim 1, and Figure 2 illustrates the sequence of steps shown in the overview of the specification. No new matter has been introduced by the drawings as they only serve to illustrate what has already been claimed in claim 1 and described in the Detailed Description portion of the specification. Basis for both Figure 1 and Figure 2 can be found in the Detailed Description on page 5 of the specification. Applicant has amended the specification to add a Description of the Drawings section, and to add appropriate references to the figures in the specification.

Specification

On page 2 of the Office Action, the Examiner objected to the Abstract for containing more than a single paragraph, as required by MPEP §608.01(b). By this amendment, applicant has combined the original three paragraphs of the Abstract into a single paragraph.

The §101 Rejection

On page 2 of the Office Action, the Examiner has rejected claim 23 under 35 U.S.C. §101 as being directed to non-statutory subject matter. Applicant has amended claim 23 so that it is directed to statutory subject matter.

Rejections under 35 U.S.C. § 103

On page 3 of the Office Action, the Examiner rejected claims 1-2, 4, 12-13, and 15 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,591,376 to VanRooven in view of U.S. Patent No. 6,944,757 to Wilks. On page 7 of the Office Action, the Examiner has rejected claims 5-6, 16-17, 11 and 22 under 35 U.S.C. §103(a) as being unpatentable over VanRooven and Wilks and further in view of U.S. Patent No. 6,532,535 to Maffezzoni. On page 12 of the Office Action, the Examiner has rejected claims 7-9 and 18-20 under 35 U.S.C. §103(a) as being unpatentable over VanRooven and Wilks and further in view of U.S. Patent No. 6,992,991 to Duske. On page 15 of the Office Action, the Examiner has rejected claims 10 and 21 under 35 U.S.C. §103(a) as being unpatentabe over VanRooven and Wilks and further in view of U.S. Patent No. 6,853,710 to Harris. No art rejections have been presented against claim 23, presumably due to its rejection under 35 U.S.C. §101.

The Present Invention

The present invention includes a portable computing device, in which an internal non-volatile memory drive that is used to boot to a functional device GUI is automatically swapped with a temporary RAM drive if the internal non-volatile memory drive is found to

be corrupted. The non-volatile memory is typically Flash memory, but the principle of the present invention can be applied to any kind of non-volatile memory that could become corrupted. Default configuration files may be automatically copied to the RAM drive. These may, for example, allow at least emergency voice calls to be made.

The Examiner Has Not Established a Prima Facie Case of Obviousness

As set forth in the MPEP:

> To support a rejection under 35 U.S.C. §103, a reason, suggestion, or motivation to lead an inventor to combine two or more references must be found. *Pro-Mold and Tool Co. v. Great Lakes Plastics Inc.*, 37 U.S.P.Q.2d 1627, 1629 (Fed.Cir. 1996). The Examiner has not met his burden in establishing a reason, suggestion, or motivation for combining the cited references.

The Examiner asserts that VanRooven, column 2, lines 16-25, and column 3, lines 8-11, discloses the following part of claim 1: "if the operating system is intact," i.e., a determination of the state of the operating system.

VanRooven, in column 2, lines 16-25, discloses nothing about the state of the Operating System; instead, VanRooven discloses only that the failure rate of *ROM* is much lower than that of mass storage devices. It is simply devoid of any disclosure regarding the condition of the OS, and mentions nothing about the predicate requirement (as claimed herein) that the OS be intact. Further, VanRooven never mentions anything that would indicate that what is *contained in* the ROM is 100% intact.

What VanRooven does disclose is that the Operating System kernel is instantiated in a RAM disk partition, and this Operating System kernel then runs detection scripts upon a primary

image. Again, this Operating System kernel has no guarantee of being intact in VanRooven, and there is no mention of checking or determining this in VanRooven. VanRooven simply doesn't address (nor care about) the state of the OS. Applicant believes the Examiner mistakenly references this as an indication that the instantiated Operating System in the RAM disk runs some scripts that perform integrity checks and rebuild the primary image, but the instantiated Operating System is not performing these checks upon itself.

It can therefore be seen that the column 2, lines 16-25 and column 3, lines 8-11 citations given by the Examiner do not disclose the prerequisite that the Operating System be intact as in claim 1; VanRooven does not disclose that the source data (the Operating System) in itself is intact; therefore, VanRooven has no means of knowing that the source data to be copied is intact within itself.

The Examiner asserts also that that VanRooven discloses that the non-volatile memory is automatically swapped (Examiner's reference: VanRooven Figure 2, step 208, 202) with a temporary RAM drive (Examiner's reference: VanRooven column 3, line 9 and column 5, line 30).

In VanRooven, Figure 2, step 208, 202, what is shown is a partition named "swap." This is an area on a hard disk drive, as disclosed in VanRooven, column 3, lines 63-67, where the swap partition is in the hard disk drive (see also VanRooven, column 7, line 34, where VanRooven discloses that the swap partition is disk space). In VanRooven, column 4, lines 65-67, the "swap" partition is described as designating a file system used for virtual memory-swapping by the Linux Operating System. It is commonly known to one skilled in the art that a swap partition is where items that are unused and taking up memory space are placed until they

are needed again, so that the memory that they are taking up can be used by other system resources. It is further commonly known to one skilled in the art that virtual memory is a technique in which an application program is given the impression that it has more continuous memory available than there really is, and can in fact be fragmented and more often than not, spill over into a special type of disk storage, such as the swap partition.

VanRooven, column 3, line 9, discloses a RAM disk partition, not a temporary RAM drive as is claimed. It is known within the general field of computing that drives can be partitioned, and that multiple drives can exist within partitions, and Applicant does not claim to have invented partitioning. With regard to the Examiner's claim that VanRooven, column 5, line 30, discloses a temporary RAM drive, this is clearly not the case. VanRooven, column 5, line 30, VanRooven discloses intermediate RAM caching. RAM caching is a technique to cache (store) data that is frequently read or to be written, allowing for quicker throughput of an application. This is not the same as a RAM drive, which is accessed in much the same way as a normal hard drive "C: partition".

From the foregoing comments, it can be seen that in the present invention applicant is claiming the swapping (copying) of non-volatile memory into a volatile memory drive, whereas in VanRooven, by using a swap partition, volatile data is being swapped into a non-volatile storage location.

It appears that the Examiner is asserting that a RAM cache is the same as a temporary RAM drive. It appears also that the Examiner is saying that a RAM drive partition is the same as a temporary RAM drive. Neither of these assertions are correct. A RAM drive may be contained within a RAM drive partition, but a partition is not a drive. Removing RAM from the

equation, it is generally known to one skilled in the art within the area of computing that a partition describes an area of space on a disk drive. That area is then formatted with a file system and assigned a drive letter; at this point it becomes a drive (interchangeable with the term volume). This drive is on a partition. It is possible to partition a hard drive without imprinting a file-system on it, and there can be partitions with no volumes.

Regarding the Examiner's claim that "...to enable the Operating System to boot" is disclosed by VanRooven in column 3, lines 8-11, applicant provides the following comments. Column 3, lines 8-11 of VanRooven, discloses that "The initial OS kernel, upon power on, or other boot event, is instantiated in a RAM disk partition." Thus, the Operating System is instantiated in a RAM disk partition in any case. This does not disclose the booting of the Operating System to overcome a technical problem. The present claimed invention does exactly this.

Applicant believes that the Examiner is taking the term "enable" in claim 1 out of context, and when this is done, it loses its meaning. VanRooven does not talk about enabling booting when the non-volatile memory is corrupt; VanRooven deals with enabling in a different context - when no external factor has caused the booting medium to be changed from non-volatile to volatile.

In view of the above, applicant submits that VanRooven does not present a legitimate basis for a rejection under 35 U.S.C. §103, as the claim elements it purports to teach and/or suggest are not actually taught or suggested therein. Thus, VanRooven combined with any of the secondary references does not render the present claimed invention unpatentable, and the

Examiner is respectfully requested to reconsider and withdraw the rejection of the claims under 35 USC §103.

Conclusion

The present invention is not taught or suggested by the prior art. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims. An early Notice of Allowance is earnestly solicited.

The Commissioner is hereby authorized to charge any fees associated with this communication to applicant's Deposit Account No. 50-4364.

Respectfully submitted

July 9, 2008
Date

/Mark D. Simpson/
Mark D. Simpson, Esquire
Registration No. 32,942

SAUL EWING LLP
Centre Square West
1500 Market Street, 38th Floor
Philadelphia, PA 19102-2189
Telephone: 215 972 7880
Facsimile: 215 972 4169
Email: MSimpson@saul.com